

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An aspherical single vision spectacle lens having a prismatic power to correct [hereophoria] heterophoria of an eye comprising:

a front surface; and

a back surface,

wherein at least one of said front and back surfaces is a rotationally-asymmetrical aspherical surface that has a rotationally-asymmetrical component to correct the aberrations caused by adding said prismatic power to the single vision spectacle lens.

2. (Currently Amended) The aspherical spectacle lens according to claim 1, wherein said back surface is said rotationally-asymmetrical aspherical surface, and ~~assuming that~~ when a framing reference point is coincident with a pupil position of a user when the spectacle lens is installed on a frame, curvature of an intersection line of a plane containing the normal to said rotationally-asymmetrical surface at said framing reference point and said rotationally-asymmetrical surface at the prism base side is larger than ~~that~~ at the prism apex side.

3. (Currently Amended) The aspherical spectacle lens according to claim 1, wherein said front surface is said rotationally-asymmetrical aspherical surface, and ~~assuming that~~

when a framing reference point is coincident with a pupil position of a user when the spectacle lens is installed on a frame, curvature of an intersection line of a plane containing the normal to said rotationally-asymmetrical surface at said framing reference point and said rotationally-asymmetrical surface at the prism base side is smaller than ~~that~~ at the prism apex side.

4. (Currently Amended) The aspherical spectacle lens according to claim 1, wherein the following condition (+) is satisfied within the ranges of $10 \leq h \leq 20$ and $30 \leq \theta \leq 150$;

$$C_{2-1}(h, \theta+180) - C_{2-1}(h, \theta) > 0 \text{ [[...(1)]]}$$

where

$$C_{2-1}(h, \theta) = C_2(h, \theta) - C_1(h, \theta);$$

$C_1(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_1 -axis and forms angle θ (degree) with respect to an x_1 -axis, and said front surface at a point whose distance from a z_1 -axis is h (mm);

$C_2(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_2 -axis and forms angle θ (degree) with respect to an x_2 -axis, and said back surface at a point whose distance from a z_2 -axis is h (mm);

z_1 -axis is a normal to said front surface at a framing reference point that is coincident with a pupil position of a user when the spectacle lens is installed on a frame;

y_1 -axis is a direction from the base to the apex in a plane perpendicular to the z_1 -axis;

P21221.A05

x_1 -axis is perpendicular to both of the y_1 - and z_1 -axes in a left-hand coordinate system;

z_2 -axis is a normal to said back surface at said framing reference point;

y_2 -axis is a direction from the base to the apex in a plane perpendicular to the z_2 -axis;

and

x_2 -axis is perpendicular to both of the y_2 - and z_2 -axes in a left-hand coordinate system.

5. (Currently Amended) The aspherical spectacle lens according to claim 1, wherein said back surface is said rotationally-asymmetrical surface and the following condition (2) is satisfied within the ranges of $10 \leq h \leq 20$ and $30 \leq \theta \leq 150$;

$$C_2(h, \theta+180) - C_2(h, \theta) > 0 \text{ [[... (2)]]}$$

where

$C_2(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_2 -axis and forms angle θ (degree) with respect to an x_2 -axis, and said back surface at a point whose distance from a z_2 -axis is h (mm);

z_2 -axis is a normal to said back surface at [[a]] said framing reference point that is coincident with a pupil position of a user when the spectacle lens is installed on a frame;

y_2 -axis is a direction from the base to the apex in a plane perpendicular to the z_2 -axis;

and

x_2 -axis is perpendicular to both of the y_2 - and z_2 -axes in a left-hand coordinate system.

6. (Currently Amended) The aspherical spectacle lens according to claim 1, wherein said front surface is said rotationally-asymmetrical surface and the following condition (3) is satisfied within the ranges of $10 \leq h \leq 20$ and $30 \leq \theta \leq 150$;

$$C_1(h, \theta+180)-C_1(h, \theta) < 0 \text{ [[... (3)]]}$$

where

$C_1(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_1 -axis and forms angle θ (degree) with respect to an x_1 -axis, and said front surface at a point whose distance from a z_1 -axis is h (mm);

z_1 -axis is a normal to said front surface at a framing reference point that is coincident with a pupil position of a user when the spectacle lens is installed on a frame;

y_1 -axis is a direction from the base to the apex in a plane perpendicular to the z_1 -axis;

and

x_1 -axis is perpendicular to both of the y_1 - and z_1 -axes in a left-hand coordinate system.

7. (Original) The aspherical spectacle lens according to claim 1, wherein said front surface is spherical and said back surface is rotationally-asymmetrical.

8. (New) An aspherical spectacle lens having a prismatic power to correct heterophoria of an eye comprising:

a front surface; and

a back surface,

P21221.A05

wherein at least one of said front and back surfaces is a rotationally-asymmetrical aspherical surface that has a rotationally-asymmetrical component to correct the aberrations caused by adding said prismatic power,

wherein the following condition is satisfied within the ranges of $10 \leq h \leq 20$ and $30 \leq \theta \leq 150$;

$$C_{2-1}(h, \theta+180) - C_{2-1}(h, \theta) > 0$$

where

$$C_{2-1}(h, \theta) = C_2(h, \theta) - C_1(h, \theta);$$

$C_1(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_1 -axis and forms angle θ (degree) with respect to an x_1 -axis, and said front surface at a point whose distance from a z_1 -axis is h (mm);

$C_2(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_2 -axis and forms angle θ (degree) with respect to an x_2 -axis, and said back surface at a point whose distance from a z_2 -axis is h (mm);

z_1 -axis is a normal to said front surface at a framing reference point that is coincident with a pupil position of a user when the spectacle lens is installed on a frame;

y_1 -axis is a direction from the base to the apex in a plane perpendicular to the z_1 -axis;

x_1 -axis is perpendicular to both of the y_1 - and z_1 -axes in a left-hand coordinate system;

z_2 -axis is a normal to said back surface at said framing reference point;

P21221.A05

y_2 -axis is a direction from the base to the apex in a plane perpendicular to the z_2 -axis;
and

x_2 -axis is perpendicular to both of the y_2 - and z_2 -axes in a left-hand coordinate system.

9. (New) An aspherical spectacle lens having a prismatic power to correct heterophoria of an eye comprising:

a front surface; and

a back surface,

wherein at least one of said front and back surfaces is a rotationally-asymmetrical aspherical surface that has a rotationally-asymmetrical component to correct the aberrations caused by adding said prismatic power,

wherein said back surface is said rotationally-asymmetrical surface and the following condition is satisfied within the ranges of $10 \leq h \leq 20$ and $30 \leq \theta \leq 150$;

$$C_2(h, \theta+180) - C_2(h, \theta) > 0$$

where

$C_2(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_2 -axis and forms angle θ (degree) with respect to an x_2 -axis, and said back surface at a point whose distance from a z_2 -axis is h (mm);

z_2 -axis is a normal to said back surface at a framing reference point that is coincident with a pupil position of a user when the spectacle lens is installed on a frame;

P21221.A05

y_2 -axis is a direction from the base to the apex in a plane perpendicular to the z_2 -axis;
and

x_2 -axis is perpendicular to both of the y_2 - and z_2 -axes in a left-hand coordinate system.

10. (New) An aspherical spectacle lens having a prismatic power to correct heterophoria of an eye comprising:

a front surface; and

a back surface,

wherein at least one of said front and back surfaces is a rotationally-asymmetrical aspherical surface that has a rotationally-asymmetrical component to correct the aberrations caused by adding said prismatic power,

wherein said front surface is said rotationally-asymmetrical surface and the following condition is satisfied within the ranges of $10 \leq h \leq 20$ and $30 \leq \theta \leq 150$;

$$C_1(h, \theta+180) - C_1(h, \theta) < 0$$

where

$C_1(h, \theta)$ is curvature of an intersection line of a plane, which contains a z_1 -axis and forms angle θ (degree) with respect to an x_1 -axis, and said front surface at a point whose distance from a z_1 -axis is h (mm);

z_1 -axis is a normal to said front surface at a framing reference point that is coincident with a pupil position of a user when the spectacle lens is installed on a frame;

P21221.A05

y_1 -axis is a direction from the base to the apex in a plane perpendicular to the z_1 -axis;
and

x_1 -axis is perpendicular to both of the y_1 - and z_1 -axes in a left-hand coordinate system.